

CLAIMS:

1. A medical equipment management apparatus for managing a medical equipment provided in a medical facility connected to the apparatus through a network, the apparatus comprising:
  - a reception unit configured to receive parameter data regarding the medical equipment;
  - a storage unit configured to store the parameter data;
  - a prediction unit configured to calculate an expectancy of the parameter data to be received in the future based on the stored parameter data;
  - a determination unit configured to determine a level of the expectancy; and
  - an informing unit configured to issue a notice to the medical facility through the network according to the determined level.
2. The apparatus according to claim 1, wherein the informing unit is further configured to issue a notice to a local maintenance provider which provides a maintenance service for the medical equipment.
3. The apparatus according to claim 1, wherein the determination unit determines the level based on whether or not the expectancy exceeds a predetermined threshold.
4. The apparatus according to claim 3, wherein the predetermined threshold includes an upper threshold level and a bottom threshold level of the parameter data.
5. The apparatus according to claim 3, wherein the predetermined threshold includes a first threshold level and a second threshold level exceeding the first threshold level.
6. The apparatus according to claim 5, wherein the informing unit issues the notice allowing a reference of a graph which shows the stored parameter data and the expectancy with the first and second threshold levels in chronological order.
7. The apparatus according to claim 6, wherein the stored parameter data and the expectancy are shown in a distinguishable manner.

8. The apparatus according to claim 5, wherein the informing unit issues the notice to a first address when the expectancy is determined to be between the first threshold level and the second threshold level and to a second address when the expectancy is determined to exceed the second threshold level.

9. The apparatus according to claim 5, wherein the informing unit issues the notice including a first content when the expectancy is determined to be between the first threshold level and the second threshold level and the notice including a second content different from the first content when the expectancy is determined to exceed the second threshold level.

10. The apparatus according to claim 9, wherein the first content represents a necessity of a maintenance service for the medical equipment without urgency; and wherein the second content represents a necessity of an urgent maintenance service for the medical equipment.

11. The apparatus according to claim 1, wherein the prediction unit calculates the expectancy by statistically analyzing the stored parameter data.

12. The apparatus according to claim 1, wherein the parameter data represents a characteristic regarding a part of the medical equipment at each of a plurality of times.

13. The apparatus according to claim 12, wherein the parameter data is given for each of a plurality of parts of the medical equipment.

14. The apparatus according to claim 1, wherein the expectancy is the parameter data predicted to be received at a predetermined time.

15. The apparatus according to claim 14, wherein the predetermined time is designated.

16. The apparatus according to claim 1, further comprising a provider configured to provide the expectancy through a telecommunication network.

17. The apparatus according to claim 16, wherein the expectancy is included in a report which reports information of the medical equipment through the telecommunication network.

18. The apparatus according to claim 16, wherein the expectancy is provided through an Internet web site.

19. The apparatus according to claim 1, further comprising a second storage unit configured to store maintenance contract information of the medical equipment, and wherein the determination unit determines the level based on the stored maintenance contract information.

20. The apparatus according to claim 19, wherein the stored maintenance contract information is changed by an external terminal connected to the apparatus through the network.

21. The apparatus according to claim 2, further comprising a second storage unit configured to store maintenance contract information of the medical equipment, and wherein the informing unit issues the notice to the local maintenance provider based on the stored maintenance contract information and the determined level.

22. The apparatus according to claim 21, wherein the predetermined threshold includes a first threshold level and a second threshold level exceeding the first threshold level,

wherein the informing unit issues the notice including a first content when the stored maintenance contract information is a first type and the expectancy is determined to exceed the second threshold level,

wherein the informing unit issues the notice including a second content when the stored maintenance contract information is the first type and the expectancy is determined to be between the first threshold level and the second threshold level,

wherein the informing unit issues the notice including a third content when the stored maintenance contract information is a second type and the expectancy is determined to exceed the second threshold level, and

wherein the informing unit does not issue the notice when the stored maintenance contract information is the second type and the expectancy is determined to be between the first threshold level and the second threshold level.

23. The apparatus according to claim 1, wherein a determining condition is stored for a user of the medical equipment, and wherein a content included in the notice is changed based on the determining condition stored for the user.

24. A medical equipment management apparatus for managing a medical equipment provided in a medical facility connected to the apparatus through a network, the apparatus comprising:

a reception unit configured to receive parameter data regarding the medical equipment;

a storage unit configured to store the parameter data;

a prediction unit configured to calculate an expectancy of the parameter data to be received in the future based on the stored parameter data;

a determination unit configured to determine a level of the expectancy;

a second reception unit configured to receive a reference request for the expectancy from a computer; and

a providing unit configured to allow the computer to refer to information of the expectancy based on the received reference request.

25. The apparatus according to claim 24, wherein the computer is provided in a local maintenance provider which provides a maintenance service for the medical equipment.

26. The apparatus according to claim 24, wherein the computer is provided in the medical facility.

27. The apparatus according to claim 24, wherein the computer is provided in the apparatus.

28. The apparatus according to claim 24, wherein the information is a graph showing the stored parameter data and the expectancy.

29. The apparatus according to claim 24, wherein the prediction unit calculates the expectancy in response to the reception of the reference request.

30. The apparatus according to claim 24, wherein the prediction unit calculates the expectancy at predetermined times.

31. A medical equipment management apparatus for managing a medical equipment provided in a medical facility connected to the apparatus through a network, the apparatus comprising:

a reception unit configured to receive parameter data regarding the medical equipment;

a storage unit configured to store the parameter data;

a prediction unit configured to calculate an expectancy of the parameter data to be received in the future based on the stored parameter data;

a determination unit configured to determine a date when the expectancy is substantially identical to a predetermined threshold;

a second reception unit configured to receive a reference request for the date from a computer; and

a providing unit configured to allow the computer to refer to information of the date based on the received reference request.

32. The apparatus according to claim 31, further comprising an informing unit configured to issue a notice to a second computer according to the determined date.

33. A method of managing a medical equipment provided in a medical facility, the method comprising the steps of:

receiving parameter data regarding the medical equipment;

storing the parameter data;

calculating an expectancy of the parameter data to be received in the future based on the stored parameter data;

determining a level of the expectancy; and

issuing a notice to the medical facility through the network according to the determined level.

34. A method of managing a medical equipment provided in a medical facility, the method comprising the steps of:

receiving parameter data regarding the medical equipment;

storing the parameter data;

calculating an expectancy of the parameter data to be received in the future based on the stored parameter data;

receiving a reference request for the expectancy from a computer; and

allowing the computer to refer to information of the expectancy based on the received reference request.

35. A method of managing a medical equipment provided in a medical facility, the method comprising the steps of:

receiving parameter data regarding the medical equipment;

storing the parameter data;

calculating an expectancy of the parameter data to be received in the future based on the stored parameter data;

determining a date when the expectancy is substantially identical to a predetermined threshold;

receiving a reference request for the date from a computer; and

providing the computer with information of the date based on the received reference request.

36. A management system, comprising:

a medical facility apparatus, provided in a medical facility, configured to transmit parameter data representing a status of a medical equipment through a network; and

a medical equipment management apparatus configured to calculate an expectancy of the parameter data to be received in the future based on the parameter data transmitted from the medical facility apparatus, to determine a level of the expectancy, and to output a notice indicating a situation of the medical equipment according to the determined level.

37. A management system, comprising:

a medical facility apparatus, provided in a medical facility, configured to transmit parameter data representing a status of a medical equipment through a network;

a medical equipment management apparatus configured to calculate an expectancy of the parameter data to be received in the future based on the parameter data transmitted from the medical facility apparatus and to transmit information of the expectancy through the network; and

a terminal equipment configured to receive and display the information transmitted from the medical equipment management apparatus.

38. A monitoring apparatus for managing an equipment connected to the apparatus through a network, the apparatus comprising:

a reception unit configured to receive data regarding the equipment a plurality of times;

a storage unit configured to store the data;

a prediction unit configured to calculate an expectancy of the data to be received in the future based on the stored data;

a determination unit configured to determine a date when the expectancy is substantially identical to a predetermined threshold; and

an informing unit configured to issue a notice through the network.

39. A medical equipment for a use of a medical service, the equipment comprising:

a monitoring device configured to monitor data regarding the medical equipment; and

a correcting device configured to bring the data within a predetermined range when the monitored data is not within the predetermined range.

40. The equipment according to claim 39, wherein the data corresponds to a part of the medical equipment.

41. The equipment according to claim 39, wherein the equipment is an X-ray computed tomography apparatus.

42. The equipment according to claim 41, further comprising a gantry including a rotation part configured to radiate an X-ray and detect the X-ray; a fixed part configured to process the detected X-ray; and a reception section, provided in one from a group including the rotation part and the fixed part, configured to receive a signal transmitted between the

rotation part and the fixed part and to transmit an output based on the received signal to a following part, wherein the data is a characteristic of the reception section.

43. The equipment according to claim 42, wherein the reception section includes an amplifier configured to amplify the received signal, and wherein the characteristic is a bias voltage level of the amplifier.

44. The equipment according to claim 42, wherein the reception section includes an amplifier configured to amplify the received signal, and wherein the characteristic is an amplitude voltage level of the amplifier.

45. The equipment according to claim 42, wherein the reception section includes a preamplifier configured to amplify the received signal and a limiting amplifier configured to amplify the received signal amplified by the preamplifier, and wherein the characteristic is a bias voltage level of the preamplifier.

46. The equipment according to claim 42, wherein the reception section includes a preamplifier configured to amplify the received signal and a limiting amplifier configured to amplify the received signal amplified by the preamplifier, and wherein the characteristic is an amplitude voltage level of the limiting amplifier.

47. The equipment according to claim 39, wherein the correcting device raises the data to reach a predetermined threshold when the data is monitored to be lower than the predetermined threshold.

48. The equipment according to claim 39, further comprising an alarm device configured to generate a warning signal when the monitored data is not within the predetermined range.